Applicant : Achim Kraiss Attorney's Docket No.: 13906-165001 / 2003P00822 US
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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A computer-implemented method for providing prediction results to an application system comprising one or more software applications that run in a computing environment during an interactive session with a user, the method comprising:

receiving a first electronic communication that includes a first input value set from the application system comprising one or more software applications that run in the computing environment;

selecting a first decision tree node by traversing one or more nodes of a decision tree using the first input value set;

using the first decision tree node and the first input value set to compute a first prediction result;

sending a second electronic communication that includes the first prediction result back to the application system;

saving electronically storing state information generated from the computation of the first prediction result;

receiving a third electronic communication that includes a second input value set from the application system;

using the stored state information to select a second decision tree node by traversing the decision tree beginning at a decision tree node referenced by the stored state information;

using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result; and

providing sending a fourth electronic communication that includes the second prediction result to the application system.

2. (Canceled)

3. (Currently Amended) The computer-implemented method of claim 1, wherein the second input value set includes both the first input value set and an additional set of input values, and wherein the method comprises using the decision tree along with the <u>stored</u> state information and the additional set of input values to compute the second prediction result.

4. (Canceled)

5. (Previously Presented) The computer-implemented method of claim 1, wherein the first input value set includes at least two input values.

6. (Previously Presented) The computer-implemented method of claim 1, wherein the second input value set includes at least two input values.

7. (Currently Amended) The computer-implemented method of claim 1, wherein the method comprises:

receiving <u>the first electronic communication that includes</u> the first input value set from the application system during an interactive session with a customer; and

receiving <u>the second electronic communication that includes</u> the second input value set from the application system during the interactive session with the customer.

8-10. (Canceled)

11. (Currently Amended) The computer-implemented method of claim 1, wherein the <u>stored</u> state information includes intermediate probability information.

12. (Original) The computer-implemented method of claim 1, wherein the first and second prediction results each specify a probability of customer churn.

13. (Canceled)

14. (Currently Amended) A computer system, comprising:

memory within which is stored an electronic representation of a decision tree; and

a prediction engine comprising a processor and executable instructions stored in memory that when executed by the processor perform the following operations that is operable to:

(a) receive a first electronic communication that includes an input value set from an application system comprising one or more software applications that run in a computing environment;

(b) select one or more decision tree nodes by traversing the decision tree using the input value set, unless stored state information exists;

(c) if stored state information exists, use the stored state information to select one or more decision tree nodes by traversing the decision tree beginning from a decision tree node referenced by the stored state information;

(d) use the one or more selected decision tree nodes, the input value set, and stored state information, if any exists, to generate a prediction result;

(e) save electronically store state information generated from the computation of the prediction result;

(f) provide send a second electronic communication that includes the prediction result to the application system[[.]]; and

repeat steps (b) – (f) each time an input value set is received from the application system.

15-19. (Canceled)

20. (Currently amended) The computer system of claim 14, wherein the <u>stored</u> state information includes intermediate probability information.

21. (Currently Amended) A computer-readable medium having computer-executable instructions contained therein for performing a method, the method comprising:

(a) receiving <u>a first electronic communication that includes</u> an input value set from an application system <u>comprising one or more software applications that run in a computing environment</u>;

(b) selecting one or more decision tree nodes by traversing a decision tree using the input value set, unless <u>stored</u> state information exists;

(c) if <u>stored</u> state information exists, using the <u>stored</u> state information to select one or more decision tree nodes by traversing the decision tree beginning from a decision tree node referenced by the <u>stored</u> state information;

(d) using the one or more selected decision tree nodes, the input value set, and the <u>stored</u> state information, if any exists, to generate a prediction result;

(e) ~~saving~~ <u>electronically storing</u> state information generated from the computation of the prediction result;

(f) ~~providing~~ <u>sending a second electronic communication that includes</u> the prediction result to the application system; <u>and</u>

repeating steps (b) – (f) each time an input value set is received from the application system.

22. (Currently Amended) A computer-implemented method for providing prediction results to an application system <u>comprising one or more software applications that run in a computing environment</u> during an interactive session with a user, the method comprising:

(a) receiving <u>a first electronic communication that includes</u> an input value set from the application system <u>comprising one or more software applications that run in a computing environment</u>;

(b) selecting one or more decision tree nodes by traversing a decision tree using

the input value set, unless <u>stored</u> state information exists;

(c) if <u>stored</u> state information exists, using the <u>stored</u> state information to select one or more decision tree nodes by traversing the decision tree beginning from a decision tree node referenced by the <u>stored</u> state information;

(d) using the one or more selected decision tree nodes, the input value set, and <u>stored</u> state information, if any exists, to generate a prediction result;

(e) ~~saving~~ <u>electronically storing</u> state information generated from the computation of the prediction result;

(f) ~~providing~~ <u>sending a second electronic communication that includes</u> the prediction result to the application system;

repeating steps (b) – (f) each time an input value set is received from the application system.

23. (Previously Presented) The method of claim 22, wherein (d) further comprises generating a prediction result using a prior prediction result.

24. (Currently Amended) The method of claim 22, wherein (a) further comprises receiving [[an]] <u>a first electronic communication that includes a first</u> input value set from the application system during an interactive session with a customer.

25. (Currently Amended) The method of claim 22, wherein the <u>stored</u> state information includes intermediate probability information.

26. (Previously Presented) The method of claim 22, wherein the prediction result specifies a probability of customer churn.

27. (Currently Amended) A computer system for providing prediction results to an application system <u>comprising one or more software applications that run in a computing environment</u> during an interactive session with a user, wherein the system is programmed to:

(a) receive [[an]] <u>a first electronic communication that includes a first</u> input value set from the application system <u>comprising one or more software applications that run in a computing environment</u>;

(b) select one or more decision tree nodes by traversing a decision tree using the input value set, unless <u>stored</u> state information exists;

(c) if <u>stored</u> state information exists, use the <u>stored</u> state information to select one or more decision tree nodes by traversing the decision tree beginning from a decision tree node referenced by the <u>stored</u> state information;

(d) use the one or more selected decision tree nodes, the input value set, and <u>stored</u> state information, if any exists, to generate a prediction result

(e) <s>save</s> <u>electronically storing</u> state information generated from the computation of the prediction result;

(f) <s>provide</s> <u>sending a second electronic communication that includes</u> the prediction result to the application system; <u>and</u>

repeat steps (b) – (f) each time an input value set is received from the application system.

28. (Previously Presented) The computer system of claim 27, wherein (d) further comprises generating a prediction result using a prior prediction result.

29. (Currently Amended) The computer system of claim 27, wherein (a) further comprises receiving [[an]] <u>a first electronic communication that includes a first</u> input value set from the application system during an interactive session with a customer.

30. (Currently Amended) The computer system of claim 27, wherein the <u>stored</u> state information includes intermediate probability information.

31. (Previously Presented) The computer system of claim 27, wherein the prediction result specifies a probability of customer churn.